

REMARKS

Reconsideration of this application is requested. Claims 48-63 are in the case.

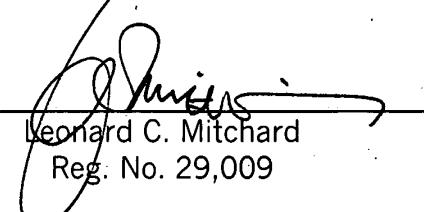
In response to the restriction requirement, Group V (claims 32-35) is hereby elected. All of the claims in the case have been cancelled and replaced by new claims 48-63. These claims are derived from claims 32-35 of Serial No. 07/958,598, now abandoned.

The Examiner's attention is directed to copending application Serial No. 09/494,243 (Attorney Reference 1331-300) and the new claims presented therein in response to the outstanding Restriction Requirement in that case. A copy of the claims as so presented is attached to the present response for reconsideration by the Examiner. Favorable action on this application is awaited.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages is captioned "Version With
Markings To Show Changes Made."

Respectfully submitted,

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Attachment: claims in Serial No. 09/494,243

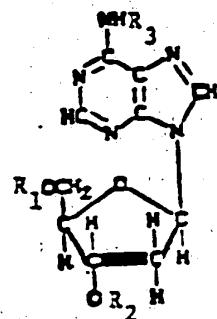
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claims 1-47 are canceled.

New Claims 48-63 are added.

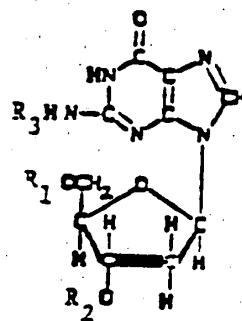
47. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxyadenosine, having the formula



wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R₁, R₂, and R₃ are H, and where R₃ is not H, then R₁ and/or R₂ may also be acetyl, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

48. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxyguanosine having the formula

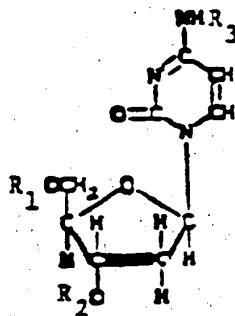


wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, phenylalanine, carnitine, and ornithine,
- (c) nicotinic acid, or
- (d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R₁, R₂, and R₃ are H, and where R₃ is not H, then R₁ and/or R₂

may also be acetyl, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

49. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxycytidine, having the formula

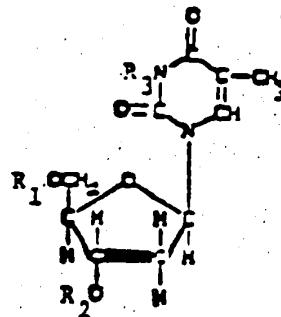


wherein R₁, R₂, and R₃ are the same or different and each is hydrogen or an acyl group derived from

- (a) an unbranched fatty acid with 3 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,
- (c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, provided that not all of R₁, R₂, and R₃ are H, and where R₃ is not H, then R₁ and/or R₂ may also be acetyl, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

50. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxythymidine, having the formula



wherein R₁ is an acyl group derived from

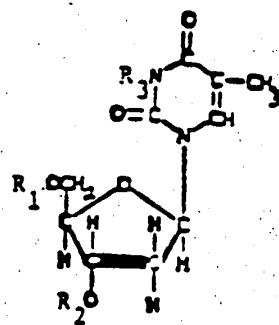
(a) an unbranched fatty acid with 3 to 15 or 17 to 22 carbon atoms,

(b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,

(c) nicotinic acid, or

(d) a dicarboxylic acid having 3 to 22 carbon atoms, and R₂ and R₃ are H, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

51. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxythymidine, having the formula



wherein R₁ is H, R₂ is an acyl group derived from

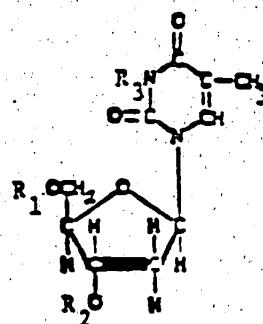
(a) an unbranched fatty acid with 3 to 13 or 15 to 22 carbon atoms,

(b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,

(c) nicotinic acid, or

(d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is H or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

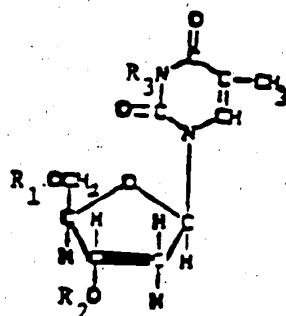
52. (New) A method for treating or preventing mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxythymidine, having the formula



wherein R₁ and R₂ are the same or different and each is an acyl group derived from

(a) an unbranched fatty acid with 5 to 22 carbon atoms,
(b) an amino acid selected from the group consisting of glycine,
the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline,
hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid,
arginine, lysine, histidine, carnitine, and ornithine,
(c) nicotinic acid, or
(d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is H or a
pharmaceutically acceptable salt thereof, and a pharmaceutically
acceptable carrier.

53. (New) A method for treating or preventing a mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an acyl derivative of 2'-deoxythymidine, having the formula

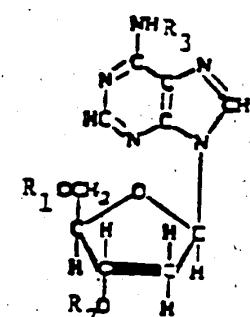


wherein R₁ and R₂ are the same or different and each is an acyl group derived from

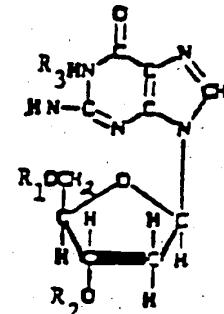
- (a) an unbranched fatty acid with 2 to 22 carbon atoms,
- (b) an amino acid selected from the group consisting of glycine, the L forms of alanine, valine, leucine, isoleucine, tyrosine, proline, hydroxyproline, serine, threonine, cysteine, aspartic acid, glutamic acid, arginine, lysine, histidine, carnitine, and ornithine,

- (c) nicotinic acid or
- (d) a dicarboxylic acid with 3 to 22 carbon atoms, and R₃ is an acyl group derived from an optionally substituted benzoyl or heterocyclic carboxylic acid that is substantially nontoxic, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

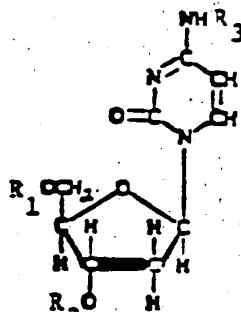
54. (New) A method for treating or preventing a mutagen-induced cellular damage comprising administering to an animal an effective amount of a composition comprising an effective amount of each of at least two compounds selected from at least two of the groups of compounds having formulae



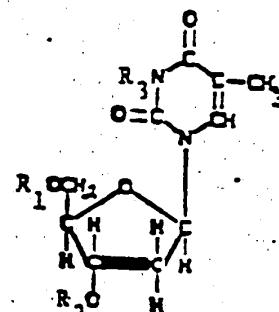
(I)



(II)



(III)



(IV)

wherein R₁, R₂, and R₃ are the same or different and each is H or an acyl group derived from a carboxylic acid, provided that at least one of said substituents R₁, R₂, and R₃ on each of said groups of compounds is not hydrogen, or pharmaceutically acceptable salts thereof, and a pharmaceutically acceptable carrier.